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ABSTRACT

This report is composed of a series of abstracts describing innovative/exemplary activities in industrial education in Michigan. The activities included (1) projects which invent a creative solution to a problem; (2) projects which demonstrate an exemplary program suitable for widespread use or a model to emulate; and (3) adoption of an exemplary program/activity to a university's requirements and its incorporation into the industrial education program. The abstracts are listed by institution, and describe programs in some of the following areas: fine and applied arts; vocational/ special education; aircraft construction; industrial technology; computer graphics; manufacturing technology; industrial arts; auto electrical systems and media development; manual arts therapy; metric education; and remote computerized phototypesetting. The abstracts include information on the purpose and goals of the program, progress to date, plans for the future, related publications, and available information as well as the director's name, the department in which the program is included, and the date the program was initiated. (LBH)

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ABSTRACTS OF INNOVATIVE/EXEMPLARY ACTIVITIES IN INDUSTRIAL TEACHER EDUCATION IN THE STATE OF MICHIGAN (MCITE REPORT-G REV. 1976)

A Status Report of the
Member Institutions
of the
MICHIGAN COUNCIL OF INDUSTRIAL TEACHER EDUCATORS

Compiled By

John G. Nee
and
John H. Matson

Department of Industrial Education and Technology
Central Michigan University
Mt. Pleasant, Michigan 48859

SP010 033

INTRODUCTION

During the October, 1975 Michigan Council of Industrial Teacher Educators (MCITE) Conference held at the Butzel Conference Center a status report entitled "Innovations: What's New in Industrial Education (MCITE Report - g 1975) was presented by William deKryger of Central Michigan University. At that time it was indicated that a final summary report suitable for distribution to interested institutions and agencies would be developed and made ready for presentation during April, 1976.

It was decided that the report should appear as a series of abstracts describing innovative/exemplary activities in industrial teacher education conducted in the State of Michigan. Innovative/exemplary activities were defined as: (1) projects which invent a creative solution to a problem, (2) projects which demonstrate an exemplary program suitable for widespread use or a model to emulate, and (3) adoption of an exemplary program/activity to a university's requirements and its incorporation into the industrial education program. Many of the activities reported by the member institutions combined two or more of these characterists.

Member institutions were asked to have individuals knowledgeable about a given activity complete an abstract form for each activity judged suitable for inclusion in the final report.

The following abstracts represent a start at recording innovated/exemplary industrial teacher education activities conducted in the State. It is hoped that this report will be updated and revised periodically in the years to come.

John G. Nee
John H. Matson
CMU - April 1976

LIST OF ABSTRACTS BY INSTITUTION

Central Michigan University

1. Cluster Approach in Manufacturing and Construction, Contemporary Industries, Power and Energy, and Graphics and Design.
2. Fine and Applied Arts Curriculum
3. Master Planning
4. PSI Approach in Descriptive Geometry
5. Vocational Education/Special Education Graduate Program
6. Master in Administration of Vocational Education

Eastern Michigan University

1. Aircraft Construction Workshop
2. MS Degree Program in Industrial Technology
3. Special Bicentennial Graduate Colloqium: "Education Beyond the Bicentennial"
4. Computer Graphics
5. Manufacturing Technology Course
6. Industrial Arts Minor for Special Education Teachers
7. Development of Photo-Polymer Relief Process for Use in Secondary School Graphics Programs
8. Industrial Arts Minor for Elementary Teachers

Ferris State College

1. A Short Course in Auto Electrical Systems and Media Development

Lake Superior State College

1. Operation Contact

Wayne State University

1. Doctoral Externship Program

Western Michigan University

1. Establishment of Manual Arts Therapy Curriculum
2. Metric Education
3. Remote Computerized Phototypesetting
4. Student Planning Program

Title of Activity Cluster Approach in Manufacturing and Construction, Contemporary Industries, Power and Energy, and Graphics and Design

Department / Division Department of Industrial Education and Technology

Institution Central Michigan University

City Mt. Pleasant Zip Code 48859

Director(s) of Activity Chairman - Dept. of Ind. Ed. & Tech.

Date Initiated 1972-73

Purpose / Goals / Objectives of Activity:

In an effort to operationalize the cluster approach the Department of Industrial Education and Technology has organized departmental clusters which includes: (1) Contemporary Industry, (2) Graphic and Design Technology, (3) Manufacturing and Construction Technology, and (4) Power and Energy Technology. Courses included under these clusters are so listed in the University Bulletin. In implementing the cluster approach, a course number code was also adoped which indicate university level as well as the cluster. This coding is as follows:

100	Freshman	10-20	Contemporary Industries
200	Sophomore	40-50	Graphic and Design Technology
300	Junior	60-70	Manufacturing & Construction Tech.
400	Senior	80-90	Power & Energy Technology
500	Senior & Graduate		

Progress to Date:

Progress to Date (continued):

Plans For the Future:

Related Publications:

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: See University Bulletin

Person to Contact Registrar Office Phone (517) 774-3261

Address Central Michigan University

Mt. Pleasant, MI 48859

Title of Activity Fine and Applied Arts Curriculum

Department / Division Dept. of Industrial Education & Technology

Institution Central Michigan University

City Mt. Pleasant, MI Zip Code 48859

Director(s) of Activity Advisors in Departments within The School of Fine and Applied Arts

Date Initiated 1970-71

Purpose / Goals / Objectives of Activity:

The "Curriculum in the School of Fine and Applied Arts" provides a completely flexible and individualized degree structure requiring 53 semester hours of general education and 71 semester hours of specialized education. The degree structure has two options. Option A is a non-teaching program which allows the student to select 53 semester hours of courses in no less than six departments outside his or her major and minor to complete the general education requirement. The total hours in each department shall be no less than three and no more than twelve from areas of (A) organization and communication of ideas, (B) Physical Environment and Biological Inheritance, (C) Social Inheritance and Responsibilities, and (D) Insight and Appreciation. The major taken from the "Specialized Studies area is required, however a minor is optional.

Under Option B, a student will receive a B.S. or B.S. in education degree and a teaching certificate. Students are required to take 12 hours in language, literature, and speech, 12 hours in science, 12 hours in social science, four hours in health, physical education and recreation, a teaching major and minor, and complete the 21 semester hours education block.

The degree structure leads to a B.A., B.A.A., B.S., or B.S. in Education degree. The B.S. degree requires a minor in science or at least 18 semester hours.

Progress to Date:

There are presently nearly 500 students enrolled in the seven departments within the School of Fine and Applied Arts who have programs authorized under this degree structure. This degree structure serves well those students who transfer from various community colleges. It allows departmental advisors to structure a 2 + 2 program which would not otherwise be possible for students pursuing careers in industry and/or education.

Progress to Date (continued):

Plans For the Future:

Related Publications:

None

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: The degree structure is described in the University Bulletin available from the Registrar's Office.

Person to Contact Registrar's Office Office Phone (517) 774-3261

Address Central Michigan University

Mt. Pleasant, MI 48859

Title of Activity Master Planning

Department / Division Department of Industrial Education & Technology

Institution Central Michigan University

City Mt. Pleasant, MI Zip Code 48859

Director(s) of Activity Chairperson

Date Initiated Spring 1970

Purpose / Goals / Objectives of Activity:

As a part of university and state planning the Department of Industrial Education and Technology produces an annual plan aimed at the next year and the next five years. The purpose of the plan is to clarify goals and match the goals with resources. Basically, the plan focuses on curriculum/programs; FTE/course offerings; and budget planning for personnel, equipment, supplies and services.

Progress to Date:

The first annual plan was produced in the spring of 1970. Each year since then another plan has been produced.

Progress to Date (continued):

Plans For the Future:

It is expected that department, school and university plans will continue on an annual basis.

Related Publications:

"Five-Year Plan," Department of Industrial Education and Technology, Central Michigan University. 1970-75, 1971-76, 1972-77, 1973-78, 1974-79, 1975-80.

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: Guidelines for preparing plans as long as supply lasts

Person to Contact Chairperson Office Phone (517) 774-3033

Address Dept. of Industrial Education and Technology

Central Michigan University, Mt. Pleasant, MI 48859

Title of Activity PSI Approach in Descriptive Geometry

Department / Division Dept. of Industrial Education and Technology

Institution Central Michigan University

City Mt. Pleasant, Michigan Zip Code 48859

Director(s) of Activity Dr. John G. Nee

Date Initiated Winter 1976

Purpose / Goals / Objectives of Activity:

The purpose for developing a Personalized System of Instruction course in the technical area of descriptive geometry was basically to organize the course so a student could enter and exit the regularly scheduled course early without penalty. The PSI approach required that the student obtain at least a 90 percent correct unit test score before progressing to the next unit. The PSI course required the development of a complete learning package consisting of performance objectives, learning activities, and criterion tests. A tutoring system was also included as a major feature of the course.

Progress to Date:

A pilot study was implemented in 1972 with revision occurring during 1975. The revised PSI materials were used in a descriptive geometry class at Central Michigan University during Winter Semester 1976.

Progress to Date (continued):

Plans For the Future:

Additional plans are being made to finalize the PSI materials during summer 1976. Other areas tentatively being studied for PSI courses include engineering graphics, and machine graphics.

Related Publications:

"The PSI Approach to Vocational Education" in Industrial Education, Paul Cuneo, Editor. February 1976, Volume 65, Number 2, pp 36-38.

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: Course policy/no cost, learning package cost is $5.00

Person to Contact Dr. John G. Nee Office Phone (517) 774-3996

Address 202 Wightman Hall, Central Michigan University, Mt. Pleasant, MI 48859

Title of Activity Vocational Education/Special Education Graduate Program

Department / Division SPE, BED, HEC, IET

Institution Central Michigan University

City Mt. Pleasant Zip Code 48859

Director(s) of Activity Dr. Ron Lutz

Date Initiated June 1974

Purpose / Goals / Objectives of Activity:

In an attempt to better prepare teachers to work effectively with students with special needs, faculty members of the Departments of SPE, BED, HEC, IET have developed a cooperative graduate program. Through a series of carefully designed, team taught course offerings, teachers are expected to improve their knowledge and understanding of the fields of Special Education, Vocational/Practical Arts Education, and Curriculum Development between teachers for individual students. Practical applications through supervised practicum and internship experiences are viewed by many as the most important ingredients.

Progress to Date:

1974 Identification of departmental representatives from Departments of SPE, BED, HEC, IET

Identification of advisory personnel outside the university

Development of program philosophy, goals, and objectives

Inclusion of program in the university planning process

1975 Development of program structure

Utilization of advisory personnel

Preparation of program documentation

Progression through university channels for approval

Progress to Date (continued):

(1975 continued) Development and improvement of course offerings

1976 Program approved by university

Utilize advisory personnel

Revise and improve course offerings

Make program available

Advise students

Plans For the Future:

1976 Operationalize program for VOC/SPE teacher

Provide summer on campus offerings

Provide fall off campus offerings

Provide winter off campus offerings

Utilize advisory personnel

Revise and improve course offerings and/or program

Related Publications:

Textbook available in late 1976, Career Exploration and Preparation for Students with Special Needs, Allyn and Bacon, Inc.

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: Brochure on program

Person to Contact Dr. Ron Lutz, Coordinator Office Phone (517) 774-3996

Address Voc Ed/Spe Ed Grad Program, 202 Wightman Hall, Central Michigan University, Mt. Pleasant, MI 48859

Title of Activity Master in Administration of Vocational Education

Department / Division IET, BED, MEC

Institution Central Michigan University

City Mt. Pleasant, Michigan Zip Code 48859

Director(s) of Activity Dr. Wells F. Cook

Date Initiated August 1976

Purpose / Goals / Objectives of Activity:

*To provide a strong foundation for professional advancement into positions of vocational education leadership.

*To increase the administrative competency of teachers, supervisors or administrators in the areas of: solving current administrative problems, leadership, program development, and history and philosophy.

*To provide an integrated experience which demonstrates the interrelationships among the various vocational education disciplines.

*To provide advanced preparation in the professional, technical and related areas of vocational education.

*To enable students to acquire a broad knowledge of the professional literature and research in vocational education.

Progress to Date:

Currently, classes are offered on a demand basis for those classes specifically taught for this curriculum. Other classes are taught on a regular basis.

Progress to Date (continued):

Plans For the Future:

Related Publications:

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: Program description/no cost

Person to Contact Dr. Wells F. Cook Office Phone 517-774-3124

Address 337 Grawn Hall, Central Michigan University, Mt. Pleasant, MI 48859

Title of Activity Aircraft Construction Workshop

Department / Division Industrial Education Department

Institution Eastern Michigan University

City Ypsilanti, Michigan Zip Code 48197

Director(s) of Activity Alfred C. Roth , Assistant Professor

Date Initiated July 12, 1976

Purpose / Goals / Objectives of Activity:

To introduce interested Industrial Education Teachers to an exciting educational activity they can carry on in their own schools. To learn methods and techniques of modern aircraft construction and utilize them to build a complete, flyable airplane. Aircraft construction projects adapt well to the industrial education laboratory and relatively few special tools are needed. Construction processes include machining; welding; sheetmetal forming and fabricating; woodworking; plastic forming; fitting and joining; metal, wood, plastics, and fabric covering and finishing.

Progress to Date:

Workshop enrollment arrangements have been announced and materials for the aircraft are being purchased. The general metals laboratory at Eastern Michigan University will be the location where aircraft construction will be done.

Progress to Date (continued):

Plans For the Future:

Additional aircraft construction workshops may be scheduled for successive summer terms.

Related Publications:

for publications and information contact:

EXPERIMENTAL AIRCRAFT ASSOCIATION, INC.
P.O. Box 229
Hales Corners, Wisconsin 53130

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: General information regarding workshop.

Person to Contact Alfred C. Roth Office Phone (313) 487-4330

Address Industrial Education Department, Eastern Michigan University

Ypsilanti, Michigan 48197

Title of Activity MS Degree Program in Industrial Technology

Department / Division Industrial Education

Institution Eastern Michigan University

City Ypsilanti, Michigan Zip Code 48197

Director(s) of Activity. Dr. Clois E. Kicklighter

Date Initiated Fall 1976

Purpose / Goals / Objectives of Activity:

For technical managers, production supervisors, and related types of personnel in industry. These people generally have the function of serving in a liaison capacity between the practical orientation of the technician and the theoretical orientation of the engineer scientist.

1. To develop advanced competencies associated with technical, supervisory, and related positions in industry.
2. To develop the ability to serve as liaison personnel between management and the various functional areas of a company.
3. To develop the "generalist" perspective needed by those employed or those individuals aspiring to mid-management industrial positions.
4. To provide advanced preparation in construction or manufacturing technology in relating the technical and human components of industry.
5. To broaden the career potential of individuals through experiences in manufacturing or construction technology

Progress to Date:

1976 Secured university approval of program.
Prepared program materials
Publicized program
Admitted students

Progress to Date (continued):

Plans For the Future:

1976-77 Admit new students to the program
Provide evening course offerings for the program
Revise and improve existing courses

Related Publications:

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: Brochure on program

Person to Contact Dr. Clois E. Kicklighter Office Phone (313) 487-4330

Address Industrial Education Department, Eastern Michigan University,
Ypsilanti, Michigan 48197

Title of Activity Special Bicentennial Graduate Colloquium: "Education Beyond the Bicentennial"

Department / Division Industrial Education in Cooperation with the Graduate School

Institution Eastern Michigan University

City Ypsilanti Zip Code 48197

Director(s) of Activity Dr. Clyde LeTarte - Acting Dean, Graduate School &
Dr. Clois E. Kicklighter, Professor, Industrial Education

Date Initiated June 14-25, 1976

Purpose / Goals / Objectives of Activity:

The theme will focus on futurism and humanism, and education's role in relating the two. Ten departments will cooperate in offering a two week graduate colloquium featuring outstanding national leaders to present ideas; followed by faculty led discussion groups that will relate these ideas to the discipline involved. Enrolled students will receive two semester hours of credit in the department of their choice. The course will be held each afternoon from 1:00 - 4:00 p.m. for two weeks, from June 14 - 28.

Progress to Date:

Several planning meetings have been held. The following prominent speakers have tentatively agreed to participate in this colloquium: ABC Science Editor Jules Bergman, educational futurist Harold Shane, former Washington, D.C. superintendent Barbara Sizemore, MSU distinguished professor Ernest Melby, and social critic and author Vance Packard. Ten discussion leaders have been identified by their departments, and course and reference materials will be selected shortly.

Progress to Date (continued):

Participating departments are:

Educational Psychology
Health, Physical Education and Recreation
Special Education
Educational Leadership
Social Foundations
Curriculum and Instruction
Guidance and Counseling
Home Economics
Industrial Education
Administration Services and Business Education

Plans For the Future:

Since this is a "one-time only" type of program in observance of the Bicentennial, no future plans have been considered. However, the format used could easily lend itself to other interdisplinary programs.

Related Publications:

Brochures, flyers, etc. prepared and distributed by the Graduate School.

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: Flyers, pamphlets - No cost.

Person to Contact Dr. Clyde LeTarte Office Phone 487-0042 (313)

Address Acting Dean, Graduate School, Pierce Hall

Eastern Michigan University, Ypsilanti, MI 48197

Title of Activity Computer Graphics

Department / Division Industrial Education

Institution Eastern Michigan University

City Ypsilanti, MI Zip Code 48197

Director(s) of Activity Jerald A. Griess

Date Initiated January 1974

Purpose / Goals / Objectives of Activity:

This program was initiated to provide students an opportunity to solve design and drafting problems using a computer driven plotter and a graphics terminal. Experiences are provided in Fortran programming on a time-sharing computer system.

Progress to Date:

1973 University acquired a Dec-System 10 time-sharing computer with a Calcomp Drum Plotter.

1974 Industrial Education staff member wrote plotter manual for University instructional computer services.

Industrial Education Department leased a Tektronix 4010 Graphics Terminal.

Course in Industrial Computer Graphics offered for the first time.

Progress to Date (continued):

1975 Industrial Education Department purchased a Tektronix 4010 Graphics Terminal. This provides two terminals for graphics.

1976 Graduate course being developed in Computer assisted design.

The Industrial Computer Graphics course has been offered 7 times with a total approximate enrollment of 150 students. In addition to the students from industrial education and industrial technology, there have been students from mathematics, geography, business and chemistry enrolled in this course.

Plans For the Future:

Develop additional computer graphics courses at the Undergraduate level.

Acquire additional equipment including a mini-computer.

Related Publications:

EMU Plotting System ICS Manual #1

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: Although information might be useful to those familiar with computer graphics, those not familiar with this field would be better off making a visit to our institution to see the program first hand.

Person to Contact Dr. Jerald A. Griess Office Phone (313) 487-4330

Address Department of Industrial Education

Eastern Michigan University, Ypsilanti, Mi 48197

Title of Activity Manufacturing Technology Course

Department / Division Industrial Education

Institution Eastern Michigan University

City Ypsilanti, MI Zip Code 48197

Director(s) of Activity Mark Lindsay, Paul Kuwik, Stan Kazmierski

Date Initiated Planning initiated Fall 1975, Course to be offered Fall 1976

Purpose / Goals / Objectives of Activity:

In an attempt to better represent industry in the broad context, this course allows the student to:

1. Place manufacturing technology in the broader context of industry and technology.
2. Apply in study and the laboratory, selected personnel practices of hiring, training, working conditions, advancing, and retiring.
3. Apply in real and simulated experiences, selected management practices of planning, organizing and controlling.
4. Differentiate, select, and apply in the laboratory, production practices of pre-processing, processing, and servicing as they relate to manufacturing production systems.
5. Identify and simulate careers in the manufacturing industries.
6. Select and use appropriate tools and materials in the manufacture of a selected product.

Progress to Date:

Fall 1975

Identification of course objectives
Specification of Behavioral Outcomes
Appropriate catalog revisions implemented
Course offerings available

Winter 1976

Equipment needs specified
Course material developed
Course offerings available

Fall 1976

Course offering available

Progress to Date (continued):

Plans For the Future:

Winter 1976

Revise and improve course
Full implementation

Related Publications:

Textbook: Armine, Harold T., Ritchey, John A., and Hulley, O.S. Manufacturing Organization and Management. Englewood Cliffs: Prentice-Hall, Inc., 1976.

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: Course description and outline

Person to Contact Mark W. Lindsay Office Phone (313) 487-4330

Address Department of Industrial Education
Eastern Michigan University
Ypsilanti, MI 48197

Title of Activity - Industrial Arts Minor for Special Education Teachers

Department/Division - Industrial Education Department

Institution - Eastern Michigan University

City - Ypsilanti, MI Zip Code - 48197

Director(s) of Activity - Professor Herbert H. Wilson

Date Initiated - 1971

Purpose/Goals/Objectives of Activity:

A 20 semester hour minor.

To provide background in industrial arts, vocational education, and career education.

To give experience in IA activities as a method of instruction generally.

To assist other teachers (IA & VE, especially) in planning the adaptions of methods and materials necessary for the handicapped.

To be able to teach supportive information that supplements the knowledge and skills being developed by the IA & VE teachers.

Progress to Date:

1971-73	Identification of pupil and teacher needs. Development of pilot program and goals
1973-76	Evaluation of graduates. Preliminary data indicates favorable results.

Progress to Date (Continued):

Plans for the Future:

Possible minor in Special Education for Industrial Education majors.

Related Publications:

Available Information:

Information is available upon written request: X YES ___NO

If yes, type of information and cost: EMU undergraduate catalog, advising sheets. No cost.

Person to Contact - Herbert H. Wilson Office Phone - (313) 487-4330

Address - Industrial Education Department
Eastern Michigan University
Ypsilanti, MI 48197

Title of Activity Development of Photo-Polymer Relief Plate Process for Use in Secondary School Graphics Programs

Department / Division Industrial Education

Institution Eastern Michigan University

City Ypsilanti, MI Zip Code 48197

Director(s) of Activity N. L. Delventhal

Date Initiated June 1975

Purpose / Goals / Objectives of Activity:

1. To explore the possible use of the many types of photo polymer relief plates as presently used in the printing industry, without excessive expense of processors and exposure equipment. If the processes prove feasible within cost and safety criteria, it should replace linoleum block as being a method of generating line illustrations for relief printing.

2. To utilize non-photographic image generation of negative designs to be used with the polymer plates.

Progress to Date:

The only success has been with the BASF "Nyloprint" plate material that has performed well with a variety of simple exposure sources. It can be hand processed and is within the range of reasonable costs.

Difficulties have been incurred in obtaining other types of plates. Some plates have not been utilized due to complicated procedures or hazardous chemicals required for processing.

Progress to Date (continued):

Plans For the Future:

Continued testing of plates as they become available and development of imaging techniques.

Related Publications:

Technical data from the manufactures has been very limited.

Available Information:

Information is available upon written request: ◯ YES (X) NO

If yes, type of information and cost: _____

_____

_____

Person to Contact _____ Office Phone _____

Address _____

_____

Title of Activity Industrial Arts Minor for Elementary Teachers

Department / Division Industrial Education

Institution Eastern Michigan University

City Ypsilanti, MI Zip Code 48197

Director(s) of Activity Dr. Lewis D. Kieft

Date Initiated 1973

Purpose / Goals / Objectives of Activity:

After having completed two required Industrial Arts courses, many students in elementary curriculums requested additional courses, work in that area. As a result, the minor was initiated to provide these students with additional skills and knowledge regarding tools, equipment, materials and processes of Industry. This 20 semester hour minor includes five hours of required courses and fifteen hours of electives from approved departmental courses.

Progress to Date:

1974 - Identification of Student needs
Development of program philosophy and structure goals & objectives
Identification of courses for the minor
Submitting program for University approval

1975 - Minor approved by University
Advisor designated and advising system & Materials developed
Approximately 30 students started this minor

Progress to Date (continued):

Plans For the Future:

1976 - Several courses included in this minor will be changed to reflect basic tool skills and competency based instruction.

One course in manufacturing and one in construction will be added to the list of elective courses.

Related Publications:

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: Advising sheet listing possible courses at no cost.

Person to Contact Dr. Lewis D. Kieft Office Phone (313) 487-4330

Address Industrial Education
Eastern Michigan University
Ypsilanti, MI 48197

Title of Activity A Short Course (or series of courses) in Auto Electrical Systems & Media Development

Department / Division School of Education and Learning Resources
School of Technical and Applied Arts

Institution F.S.C.

City Big Rapids, Michigan Zip Code 49307

Director(s) of Activity Coordinated by Dr. Bruce Jacobs-Director of Continuing Educ.

Date Initiated May 1975

Purpose / Goals / Objectives of Activity:

F.S.C. has combined the resources of their Automotive Technology program with their Trade-Technical Teacher Education program to offer a unique approach to the professional development of automotive instructors. The major objectives are

1. Technical Updating-updating the automotive instructor with technical systems designed in modern chasis and accessory systems.

2. Media Development-Providing learning and "hands-on" activities in instructional design and development so the instructor leaves with relevant supporting media for his specific teaching assignment.

Progress to Date:

1974- Planning and Development Phase

1975-- A highly successful "first attempt" was conducted during the spring-summer quarter break of 1975, attracting participants from several states some as far away as South Carolina and Wyoming along with several Michiganders and a Canadian teacher.

1976-- Follow-up data confirmed the high degree of satisfaction enjoyed by the participants and new offerings are being planned for the summer of 1976 in a somewhat revised time format.

Progress to Date (continued):

Plans For the Future:

It is anticipated the concept will be adopted by many subject matter areas. Preliminary proposals are being drafted in consumer education and industrial safety. Discussions regarding the appropriateness in many other fields is also underway.

Related Publications:

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: Brochures and Application

Person to Contact Dr. Bruce Jacobs Office Phone 616-796-9971 (ext. 230)

Address Director of Continuing Education

Ferris State College, Big Rapids, Michigan 49307

Title of Activity Operation Contact

Department / Division Industrial Education & Technology

Institution Lake Superior State College

City Sault Saint Marie Zip Code 49783

Director(s) of Activity David Leo Lickteig

Date Initiated January 1976

Purpose / Goals / Objectives of Activity:

To make the availability of staff or speakers, class discussion leaders, etc. along with the topics they are willing to work with known to the schools in the U.P. and upper lower Michigan. We pay transportation, etc., schools need only make arrangements

Progress to Date:

Information has gone out. To date no takers.

Progress to Date (continued):

Plans For the Future:

Direct Contact.

Related Publications:

None yet

Available Information:

Information is available upon written request: (X) YES ( ) NO

If yes, type of information and cost: verbal

Person to Contact David Leo Lickteig Office Phone 632-6841 (960) ex. 370

Address Lake Superior State College Sault Ste. Marie, MI 49783

Department of Engineering Technology

Title of Activity Doctoral Externship Program

Department / Division Vocational & Applied Arts Education

Institution Wayne State University

City Detroit Zip Code 48202

Director(s) of Activity Dr. Fred S. Cook

Date Initiated June, 1975

Purpose / Goals / Objectives of Activity:

This program is designed for people in instructional leadership, supervisory or curriculum posts in Vocational and Applied Arts Education of the Teacher Education Division, College of Education.

The TED/VAE doctoral program is conceived as a CBE program with specific competencies, performances, and a means for evaluating them. Within the framework of the current program in TED/VAE, the following areas of competency have been identified: Competency in foundation areas; specialty area; competence outside VAE; in Application of Educational theory, research, and technology; Creativity and innovation; and the assimilation and application of New Development.

Progress to Date:

The program was fully implemented for participation in September, 1975 -- after initial assessments during the Summer of 1975.

Externs have identified externship projects and are presently working on these--as well as extern and seminar objectives. During this time continual review and evaluation of the program is being made.

Progress to Date (continued):

Plans For the Future:

As of now, the project is slated to end June, 1976, but there is a study being made to extend this program to the classroom teachers in the Detroit metropolitan area.

Related Publications:

None at this time.

Available Information:

Information is available upon written request: (XXX) YES ( ) NO

If yes, type of information and cost: program objectives and doctoral competencies. Cost: duplication

Person to Contact Dr. Fred S. Cook Office Phone (313) 577-0902

Address Division of Teacher Education
Wayne State University

Title of Activity Establishment of a Manual Arts Therapy Curriculum

Department / Division Industrial Education

Institution Western Michigan University

City Kalamazoo, MI Zip Code 49008

Director(s) of Activity Dr. John L. Bendix

Date Initiated 1964

Purpose / Goals / Objectives of Activity:

In affiliation with the Veteran's Administration, the Industrial Education Department developed the Manual Arts program as another option for the students in the Industrial Education curriculum.

The primary purpose was to prepare needed manual arts therapists in the areas of blind and other physical impairment and mental rehabilitation.

Under the program, the industrial education student completes his/her directed teaching requirement by spending one semester at the VA hospital in clinical training in lieu of a public school. Upon the completion of the program, the student receives his/her therapist classification and the regular secondary teaching certificate.

Progress to Date:

The program was originally set up with the Hines VA Hospital in Chicago, but it has been expanded to include the Fort Custer VA Hospital in Battle Creek.

Over the 10 year period, the participation has increased from one student the first year to nine this last school year.

Progress to Date (continued):

Plans For the Future:

There is no apparent reason why the program should not continue and the department is currently reviewing the possibility of expanding the program to include occupational or career rehabilitation.

Related Publications:

Available Information:

Information is available upon written request: (XX) YES ( ) NO

If yes, type of information and cost: _____

_____

_____

Person to Contact Dr. John L. Bendix Office Phone (616) 383-0545

Address Industrial Education Department

Western Michigan University

Kalamazoo, MI 49008

Title of Activity Metric Education

Department / Division Industrial Education Department

Institution Western Michigan University

City Kalamazoo, MI Zip Code 49008

Director(s) of Activity Dr. John R. Lindbeck, et al

Date Initiated January, 1974

Purpose / Goals / Objectives of Activity:

--effect metrication in Industrial Education Department

--provide consultative services to education and industry

Progress to Date:

Excellent. Center for Metric Education and Studies established. Metric Advisory Group of trained faculty was formed. Extensive training of selected member of the department; they are now metric specialists. Remainder of faculty was given a one day metric seminar. Student metric training planned; to commence September 1976. Several faculty are involved in the metric employee training program for the City of Kalamazoo Water Department Metrication Project. Trained specialists have all been involved in a range of metric activities ranging from teaching metric courses, workshops, and seminars, to preparing filmstrips and writing books and articles.

Progress to Date (continued):

Plans For the Future:

Future activities include a continuation of metrication program and a June 1976 workshop for industrial education teachers.

Related Publications:

Available Information:

Information is available upon written request: ◯ YES (xx) NO

If yes, type of information and cost: Nothing of a printed/formal nature.

Person to Contact Dr. John R. Lindbeck Office Phone (616) 383-6040

Address Center for Metric Education and Studies

Western Michigan University

Kalamazoo, MI 49008

Title of Activity Remote Computerized Phototypesetting

Department / Division Graphic Arts - Industrial Education Department

Institution Western Michigan University

City Kalamazoo, MI Zip Code 49008

Director(s) of Activity Dr. Arvon D. Byle

Date Initiated 2/76

Purpose / Goals / Objectives of Activity:

Provides students with experiences in utilizing a PDP-10 computer installation to set photocomposed type by remote Teletype terminals. This activity surpasses using a normal stand-alone keyboard and mini-computer on a photocomposer by allowing word division to occur from a 20,000 word dictionary instead of logic. Of further importance to the students is the contemporary and futuristic nature of such a procedure. The use of a general purpose computer coupled to an educational experience, as well as providing photo type set images is representative of future trends within the graphic communications industry. The activity is interdisciplinary in that journalism, English, and industrial education students can currently utilize this system.

Progress to Date:

Students are able to complete laboratory experiences required for their class by using any Teletype input unit on the W.M.U. campus. This flexibility is fostered through the use of self-instructional sheets and the general adaptability of the PDP-10 University computer. Entire process is currently operational.

Progress to Date (continued):

Plans For the Future:

Expand typesetting capabilities.
Expand editorial functions to include journalism department.

Activity Publications:

Available Information:

Information is available upon written request: YES NO

If yes, type of information and cost: verbal

Person to Contact Dr. Arvon Byle Office Phone (616) 383-1879

Address Industrial Education Department

Western Michigan University

Kalamazoo, MI 49008

Title of Activity Student Planning Program (pre-planning). Student projected planning of course selection for each or every session throughout his/her college career through graduation.

Department / Division Industrial Education/College of Applied Sciences

Institution Western Michigan University

City Kalamazoo, MI Zip Code 49008

Director(s) of Activity Dr. Donald Nantz

Date Initiated around 1970

Purpose / Goals / Objectives of Activity:

The planning program (pre-planning) was initiated to provide the student an opportunity to schedule the courses required for the completion of his/her curriculum in the semester or sessions of planned attendance.

The primary purposes of the program were to insure that the student had included all of the degree requirements and scheduled classes normally offered; and to provide the department information as to courses needed for a given session and the number of students requesting the course or courses.

Upon the completion of the one, two, three or four year plan, it was reviewed for accuracy and completeness. (Correct course selection and course planning in accordance with project course offerings - tenative schedules have been published for five years in advance.) After the plans are approved, the information is fed into the computer which provides information about course demands, numbers of requests, course conflicts, and class lists. This information is then utilized in the establishing of the semester and session schedules that reflect course needs, number of sections needed and elimination of conflict problems.

Progress to Date:

After a modest beginning with two or three departments, the program has been expanded to include all departments in the College of Applied Sciences and the program has gone beyond the mere determination of course needs.

The following are now included:

1. Course schedules
2. Room and facility utilization
3. Faculty utilization & assignment
4. Instructional production
5. Faculty load
6. etc.

Progress to Date (continued):

Plans For the Future:

The program has been very successful and helpful to the departments that have actively participated (Industrial Education Department) and there is every indication that the program will be continued and expanded.

Related Publications:

Available Information:

Information is available upon written request: (XX) YES ( ) NO

If yes, type of information and cost: Sample forms and projected schedules (X charts). Copy attached.

Person to Contact Dr. John L. Bendix Office Phone 616 383-0545

Address Industrial Education Department

Western Michigan University

Kalamazoo, MI 49008